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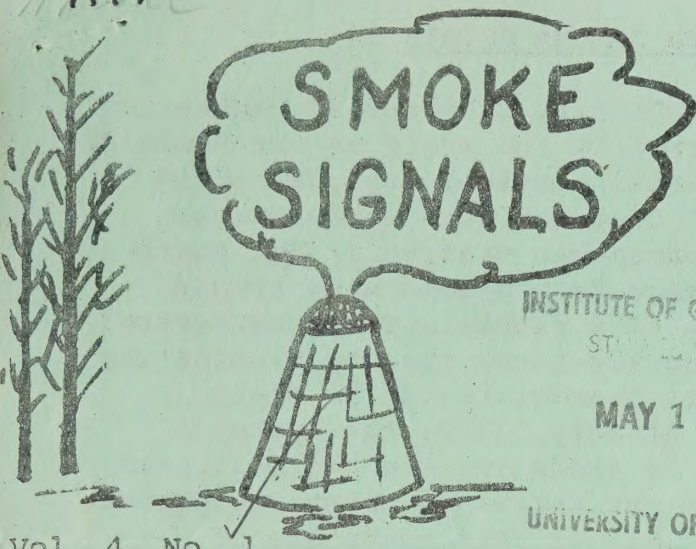

Air Pollution Control News from Humboldt & Del Norte

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Vol. 4, No. 1 First Quarter - 1972
5630 South Broadway, Eureka, California 95501 (707) 443-3091

AGRICULTURAL BURNING GUIDELINES

The California Air Resources Board has scheduled a public hearing on newly proposed agricultural burning guidelines to be held at 10:00 AM on June 19, 1972 in the Eureka City Hall. This hearing is one of three planned to be held at different locations throughout the state prior to formal adoption of the guidelines by the Air Resources Board. The Humboldt County Air Pollution Control District and several other local groups have been active critics of earlier drafts of these guidelines. Many provisions were not adaptable to range improvement and slash burning operations along the damp coastal regions of northern California. The development of agricultural burning guidelines is only one of the many burning complications which have arisen since the enactment of new state burning regulations effective January 1, 1972. Several bills are presently in the legislature that are directed at clarifying sections of this earlier open burning legislation.

AB 149-started as a proposal to allow the burning of brush on the premises where grown. It has been somewhat complicated by involvement of county health officials in regulating open burning, but generally appears to be a sound manageable piece of legislation.

AB 549-grants specific authority to county air pollution control districts for the regulation of open burning and defines the procedures to be followed by county hearing boards in granting a "hardship" variance.

SB 347-proposes that demolition debris, trees and wood waste be exempted from open burning legislation and appears to be a step backward in the field of air pollution control in the North Coast Air Basin. We would favor such a bill only if this type burning were tied in with the agricultural burning guidelines presently being developed.

The Humboldt County Air Pollution Control District is in the process of developing a completely revised open burning regulation that will be more practical and manageable for small rural counties and easily interpreted by fire district officials. The new regulation will be structured similar to Chapter 10 of the California Health and Safety Code but will regulate all burning in accordance with predicted burn-no burn meteorological conditions.

CONTRACT SERVICES EXTENDED TO SONOMA COUNTY

Sonoma County has joined with Del Norte and Trinity Counties in requesting air pollution control services to be performed by the staff of the Humboldt County Air Pollution Control District. Initial services are planned to aid the Sonoma County Air Pollution Control District with tepee burner inspections and engineering. A similar program was started in Del Norte County in December, 1972 and substantial progress has been made toward upgrading or eliminating problem burners in that county. This contractual program has provided experienced engineering services, thereby eliminating most of the normal trial and error processes characteristic to newly formed air pollution control agencies. As of July, 1972, the Humboldt County Air Pollution Control District will be assisting the air pollution control programs in four of the six North Coast Air Basin counties. Those counties using contract services have been able to take advantage of Humboldt's federal funding for partial reimbursement of many new control program activities.

AIR POLLUTION VIOLATIONS

Air pollution violations during the past quarter were about evenly divided between open burning and excessive emissions from tepee burners and power boilers. The McIntosh Lumber Company of Blue Lake was cited on several occasions for excessive tepee burner emissions following denial of an operating variance by the Hearing Board. The case was heard in Arcata Justice Court and McIntosh Lumber Company was fined $500, suspended. McIntosh's variance request was reviewed by the Hearing Board on April 6, 1972 and they have submitted plans for the installation of a new improved tepee burner. City Garbage Company's open burning violation of January 11, 1972 resulted in a fine of $500, suspended. The case against G & R Metals resulted in a "not guilty" verdict in Eureka Justice Court.

Date		Location	Source	Violation
1- 3-72	G & R Metals	Eureka	Open burning	Rule 53-Open Fires
1- 3-72	McIntosh Lumber Co.	Blue Lake	Tepee burner	Rule 50-Vis.Emissions
1- 4-72	Eureka Forest Products	Eureka	Incinerator	Rule 50-Vis.Emissions
1- 4-72	McIntosh Lumber Co.	Blue Lake	Tepee burner	Rule 50-Vis.Emissions
1- 5-72	McIntosh Lumber Co.	Blue Lake	Tepee burner	Rule 50-Vis.Emissions
1- 5-72	County of Humboldt	Eureka	Open burning	Rule 53-Open Fires
1- 7-72	McIntosh Lumber Co.	Blue Lake	Tepee burner	Rule 50-Vis.Emissions
1- 7-72	So.Hum.Animal Center	Fortuna	Open burning	Rule 53-Open Fires
1-11-72	Beverly Manor	Eureka	Open burning	Rule 53-Open Fires
1-11-72	City Garbage Company	Eureka	Open burning	Rule 53-Open Fires
1-24-72	Arcata Pump Company	Arcata	Open burning	Rule 53-Open Fires
2- 9-72	Willamette Western	Samoa	Power boiler	Rule 50-Vis.Emissions
3- 6-72	Georgia-Pacific	Samoa	Power boiler	Rule 50-Vis.Emissions
3-14-72	Orient Maritime	Fairhaven	Power boiler	Rule 50-Vis.Emissions
3-15-72	John McComas	Orick	Open burning	Rule 53-Open Fires
3-27-72	Fortuna Veneer	Fortuna	Tepee burner	Rule 50-Vis.Emissions

TRS MONITOR ORDERED

The Humboldt County Board of Supervisors has approved the purchase of a new TRS continuous monitor. TRS refers to total reduced sulfur compounds contained in kraft pulp mill emissions that are generally responsible for the characteristic odors produced. Bids were received for instruments utilizing many different types of detection methods including; peroxide-water conductivity, flame photometric, modified West-Gaeke, lead acetate tape, and several coulometric methods. A flame photometric continuous monitoring system, which is highly selective for sulfur compounds, was finally ordered. We hope to have this new monitor in service sometime this summer.

TEPEE TOPICS

The McNord Lumber Company of Blue Lake has completed the installation of Humboldt County's first auxillary fuel-fired tepee burner. Their old 80 foot burner was reduced in size to approximately a 56 foot diameter shell and all new burner components were installed by the Industrial Construction Company of Eugene, Oregon. Diesel oil is used as an auxillary fuel for startup and to improve combustion efficiency during periods of reduced wood rates to the burner. Several other companies have announced plans to install similar natural gas, diesel and LPG fuel systems in their existing burners.

The initial tepee burner inventory in Del Norte County showed that there were 13 operating tepee burners at the beginning of 1972 and 7 old burners which were not in service. All the mills are now in the process of upgrading their burners to operate within the requirements of the Del Norte County Air Pollution Control District.

COMPLAINT SCOREBOARD

Pulp mill odor complaints again dropped off sharply during the past three months to less than 50 percent of the year earlier figures. In order to further isolate the problem sources contributing to local odor, we would like to request that all our odor reporters continue to report whenever the smell becomes objectionable. YES!!!, these calls are used and help to pinpoint problem situations.

	January	February	March
Smoke	34	28	23
Fallout	9	3	1
Pulp mill odor	16	28	28
Miscellaneous other	6	6	3

AIR QUALITY SUMMARY

Commencing March, 1972, air sampling studies have been extended to include particulate and dustfall testing in Del Norte County as outlined in the North Coast Air Basin Plan.

Pollutant	Month	Maximum	Average-All Stations
Dust Fall (tons per square mile per month)	Dec. 1971	13.1 @ Arcata	Dustfall sampling program reduced to Eureka, Arcata, Guintoli Lane & Crescent City.
	Jan. 1972	23.6 @ Guintoli Lane	
	Feb.	164.8 @ Guintoli Lane	
	March	64.1 @ Guintoli Lane	
Suspended Particulate Matter (micrograms per cubic meter)	Dec. 1971	83 @ Eureka	43 New
	Jan. 1972	97 @ Eureka	45 averages
	Feb.	88 @ Eureka	44 include
	March	92 @ Eureka	40 Crescent City
Total Oxidant Maximum high hour-ppm (continuous analyzer)	Jan.	0.060 @ Eureka	
	Feb.	0.050 @ Eureka	
	March	0.050 @ Eureka	
Nitrogen Dioxide (ppm)	Jan.	0.027 @ Eureka	0.015
	Feb.	0.046 @ Arcata	0.020
	March	0.023 @ Eureka	0.018
Sulfur Dioxide (ppm) 24 hr. ave.	Jan.	<0.001 @ Ft. Humboldt	<0.001
	Feb.	<0.001 @ Ft. Humboldt	<0.001
	March	<0.001 @ Ft. Humboldt	<0.001
Visibility Violations (less than 10 miles when humidity is less than 70%)	Jan.	No violations	
	Feb.	No violations	
	March	No violations	

HUMBOLDT COUNTY
AIR POLLUTION CONTROL DISTRICT
5630 SOUTH BROADWAY
EUREKA, CALIFORNIA 95501

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SMOKE SIGNALS

Air Pollution Control News from Humboldt & Del Norte

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CYCLONE PERMITS COMPLETED

The initial inspection and processing of all cyclone separator permits has finally been completed after many detailed plant inspections and emission tests. Permit applications were processed for a total of 247 individual cyclone separators of which 205 systems were issued operating permits and 42 permits were denied for excessive particulate emissions in violation of Rule 52(b) of the HCAPCD. The most difficulty in meeting the regulations was encountered by plywood and particleboard sanding operations and dry redwood planing and finishing. Water spray systems were successful in reducing emissions from several of the dry finishing operations, but were unsuccessful in solving the sanderdust problems. Many interesting statistics were compiled by the staff of the HCAPCD during this lengthy inspection process:

Number of operating cyclone systems	- 247
Total air flow for all systems	- 3,200,000 cubic feet per minute
Total weight of material handled	- 8,600,000 pounds per day
Total dust emissions	- 18,000 pounds per day

Those cyclone systems operating in violation of the regulations, have been requested to file corrective programs with the HCAPCD leading to elimination of the excessive emission source. Those companies requiring extensive plant improvements or modifications, may need to petition the hearing board for a variance to permit continued operation while making the necessary repairs.

N O T I C E

Our bulletin mailing list is being revised. If you wish to continue to receive this quarterly publication of the Humboldt County Air Pollution Control District, please tear off the lower portion of this sheet and return the mailing label to:

Humboldt County Air Pollution Control District
5630 South Broadway
Eureka, California 95501

TEPEE TOPICS

The McIntosh Lumber Company of Blue Lake has completed a major mill revamp which included the installation of a new auxillary fuel-fired tepee burner to replace their two older burners. The new burner was installed by the Lamb-Grays Harbor Company of Hoquiam, Washington and includes several unique features which had not been previously used in Humboldt County.

The Morrison and Jackson tepee burner located at Myers Flat has been extensively modified by Nor-Cal Industries of Eureka. Local residents in the Myers Flat area report a greatly improved smoke and fallout condition in this narrow section of the Eel River Canyon.

Swift progress has been seen in the operation of Del Norte County tepee burners during the last few months. Northcrest, Simonson and Miller Redwood Company have already completed major burner improvements to bring operations into compliance with the smoke opacity requirements of the California Health and Safety Code. It is interesting to note that the quickest progress in Del Norte County was made by three predominantly redwood mills. Redwood wastes have repeatedly been the most difficult to burn and only three years ago, there were no successful redwood waste burners in Northern California.

AGRICULTURAL BURNING GUIDELINES ADOPTED

On June 21, 1972, the California Air Resources Board adopted new statewide agricultural burning guidelines for control of open burning in range improvement, forest management and other farming operations. These guidelines will be applicable in all eleven air basins in the State and will replace the existing guidelines which were previously in use in six air basins.

Under the proposed guidelines, local air pollution control districts are required to submit implementation plans which include rules and regulations and enforcement procedures for regulating open burning in the agricultural operations covered in the guidelines. Procedures must be developed outlining meteorological forecasting of burn or no-burn conditions on a day to day basis, permit procedures, and other necessary conditions to minimize the effect of agricultural burning on air quality. The proposed plan must be presented to the Air Resources Board for their approval no later than December 20, 1972.

COLLEGE OF THE REDWOODS TO OFFER COURSE IN AIR QUALITY CONTROL

* * * * * *

A new course in Air Quality Control will be offered for the first time during the coming fall quarter at the College of the Redwoods. This twelve week course will be taught Monday evenings from 7-10 p.m. and will cover in detail the causes, effects and methods of controlling air pollution nationwide. The instructor will be Charles Sassenrath, Air Pollution Control Officer for Humboldt County, who has had over eighteen years of research, engineering and air pollution experience. Persons wishing to enroll in the course should have completed the minimum prerequisite of high school chemistry or equivalent. Information concerning enrollment may be obtained from the Registrar at the College of the Redwoods.

COMPLAINT SCOREBOARD

Pulp mill odor complaints continue to be down sharply from prior years in spite of the heavy fog conditions that were experienced during June. Now that our new TRS monitor has been installed, we hope for a renewed effort by our faithful odor reporters, especially during the problem months of September and October.

	April	May	June
Smoke	12	21	19
Fallout	0	8	6
Pulp mill odor	23	41	38
Miscellaneous other	4	1	6

AIR POLLUTION VIOLATIONS

Air Pollution violations dropped off markedly during the past three months aided by restricted permit issuance by the local fire districts and generally improved tepee burner operations. Eureka Forest Products was again cited for excessive visual emissions from their waste incinerator, resulting in a fine of $500, suspended.

Date		Location	Source	Violation
4-24-72	B & C Shakes	Arcata	Tepee burner	Rule 10-No Permit
4-26-72	Eureka Forest Products	Eureka	Incinerator	Rule 50-Vis.Emission
4-26-72	Del Norte Box	Arcata	Tepee burner	Rule 50-Vis.Emission

AIR QUALITY SUMMARY

In addition to our newly installed sulfur monitor, the HCAPCD has expanded its downtown Eureka air monitoring station to include continuous readings of total oxidant, NO_2, NO_x and COH, (COH refers to coefficient of haze and is a measure of visibility obscuring particles). Air quality data will now be reported in a new form which will list the maximum daily readings of the various air pollutants. Sulfur oxide and TRS readings will be added to this listing in the next report.

Pollutant	Month	Maximum	Average-All Stations
Dust Fall (tons per square mile per month)	April	36.6 @ Guintoli Lane	
	May	89.3 @ Guintoli Lane	
	June	10.6 @ Crescent City	
Suspended Particulate Matter (micrograms per cubic meter)	April	64 @ Blue Lake	46
	May	85 @ Blue Lake	43
	June	78 @ Blue Lake	56
Sulfur Dioxide (ppm) 24 hr. ave.	May	0.001 @ Ft. Humboldt	0.001
	June	0.001 @ Ft. Humboldt	0.001
Visibility Violations (less than 10 miles when humidity is less than 70%)	April 18	Minimum - 8 miles	
	April 26	Minimum - 8 miles	
	May	No violations	
	June	No violations	

ODOR MONITOR INSTALLED

The Humboldt County Air Pollution Control District has placed its new sulfur analyzer in operation at Fort Humboldt. This new flame photometric detector is the most sensitive instrument available for measurement of sulfur compounds at ambient concentrations as low as 5 parts per billion. Correlations between the measurements of sulfur compounds and odor reports obtained from people living in the Fort Humboldt area should further assist the HCAPCD in identifying the more troublesome pulp mill odor sources. Persons living in the vicinity of Fort Humboldt should be especially alert for excessive pulp mill odor and are requested to contact our offices at 443-3091 whenever objectionable odor is noticed in their area.

AIR QUALITY SUMMARY - EUREKA

April					May					June				
	High Hourly Average			High 2-hr Interval		High Hourly Average			High 2-hr Interval		High Hourly Average			High 2-hr Interval
Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates * COH Units	Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates * COH Units	Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates * COH Units
1	.03				1	.04				1	.05	.03	.04	.4
2	.03				2	.04				2	.05	.02	.04	-
3	.03				3	.04				3	.05	.02	.03	-
4	.04				4	.04	.03	.05		4	.05	.02	.02	-
5	.05				5	.04	.03	.04		5	.04	.02	.05	-
6	.06				6	.05	.02	.04		6	.04	.02	.03	-
7	.04				7	.05	.01	.02		7	.04	.03	.05	-
8	.05				8	.04	.03	.08		8	.04	.03	.04	-
9	.05				9	.04	.02	.06		9	.04	.02	.04	-
10	.05				10	.05	.03	.04		10	.03	.02	.02	-
11	.05				11	.04	.04	.08		11	.03	.02	.03	-
12	.05				12	.03	.04	.06		12	.03	.02	.04	-
13	.05				13	.03	.02	.04		13	.04	.02	.05	.2
14	.04				14	.02	.02	.03		14	.03	.02	.04	.2
15	.05				15	.02	.02	.05		15	.03	.02	.04	.3
16	.05				16	.04	.02	.04		16	.03	.03	.04	.2
17	.05				17	.05	.02	.04	.2	17	.03	.02	.03	.1
18	.05				18	.04	.02	.05	.2	18	.03	.01	.02	.2
19	.05				19	-	.03	.06	.3	19	.03	.02	.04	.2
20	.05				20	.04	.02	.03	.1	20	.04	.02	.04	.3
21	.04				21	.04	.03	.05	.3	21	.03	.02	.05	.2
22	.03				22	.05	.02	.04	.2	22	.03	.03	.05	.3
23	.05				23	.06	.02	.04	.2	23	.03	.02	.04	.1
24	.04				24	.05	.03	.04	.2	24	.03	.01	.02	.1
25	.05				25	.05	.02	.03	.3	25	.03	.02	.02	.2
26	.04				26	.05	.03	.05	.2	26	.03	.02	.04	.2
27	.04				27	.04	.02	.03	.1	27	.03	.02	.04	.3
28	.04				28	.03	.03	.03	-	28	.02	.02	.04	.2
29	.03				29	.03	.02	.03	-	29	.02	.02	.04	.3
30	.04				30	.04	.03	.05	.2	30	.03	.02	.03	.3
31					31	.05	.02	.04	.1	31				
Max.	.06				Max.	.06	.04	.08	.3	Max.	.05	.03	.05	.4

*Coefficient of haze units per 1000 lineal feet of air sampled.

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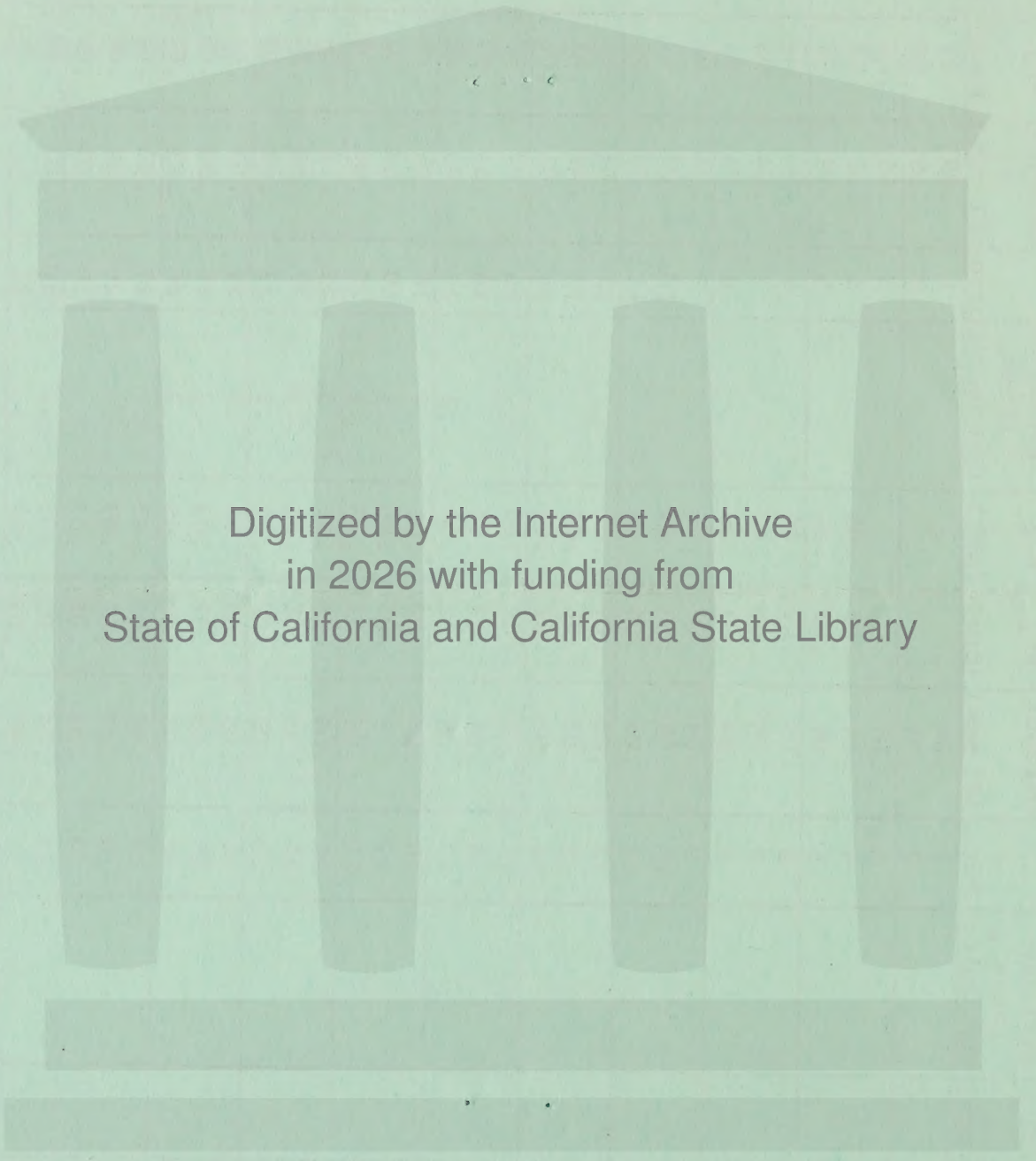

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Air Pollution Control News from Humboldt & Del Norte

Vol. 4, No. 3 Third Quarter - 1972
5630 South Broadway, Eureka, California 95501 (707) 443-3091

HEARING BOARD REVIEWS CYCLONES

The Hearing Board of the Humboldt County Air Pollution Control District met in a lengthy session on September 7, 1972 to review variance requests from four companies to permit continued operations while their existing dust collection facilities were being brought into compliance with the Control District requirements. New and improved facilities were proposed by the Orleans Veneer and Plywood Company, Sierra Pacific Industries, Simpson Timber Company and Georgia-Pacific Corporation with variance requests ranging from 90 days to eight months. The Hearing Board appeared favorably impressed with the proposed improvements submitted by Orleans Veneer, Sierra Pacific Industries, and the Georgia-Pacific planing mill. The Board stated that evidence of only a minor nature was supplied by the Simpson Timber Company and a 30 day period was granted for submittal of a detailed corrective proposal. The Georgia-Pacific plywood plant variance request was denied by the Board as no evidence was submitted indicating that corrective measures were in progress.

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One additional variance request for the burning of residential rubbish by the City of Rio Dell was also denied by the Hearing Board, which stated that reasonable alternatives to open burning were available.

COUNCIL REQUESTS ARB RULE CHANGE

At its October 6 meeting in Garberville, the North Coast Air Basin Coordinating Council voted to request the California Air Resources Board to revise the State Agricultural Burning Guidelines, paragraph 80110 (d). The proposed revision would allow 48 hour burn forecasts for all forest management burns instead of just those above 3,000 feet elevation. The Council felt that in the North Coast Air Basin the majority of forest management burns are in remote areas away from population centers and do not affect air quality as much as range improvement burns which are allowed these same 48 hour forecast privileges. Also, forest management burns are carefully preplanned deployments of large numbers of men and equipment on the fire line and it is impractical for this major effort to proceed efficiently without some advance notification and scheduling.

TEPEE TOPICS

Persons traveling to the Dinsmore area should be favorably impressed by the new tepee burner installed by the Twin Harbors Lumber Company. This new seventy foot diameter burner was built by the Industrial Construction Company of Eugene, Oregon and has an automatic top damper and auxillary fuel system for quick startup. Coupled with a proposed major burner overhaul by the Georgia-Pacific Corporation scheduled for October, 1972, residents of the Dinsmore area should be able to breathe a little fresher air in the near future.

A somewhat less encouraging note is the poor burning performance shown by the new Lamb-Grays Harbor burner which has been experiencing operating difficulties at the McIntosh Lumber Company of Blue Lake ever since its initial startup in June of this year.

Without the usual fanfare of a new burner installation, a vote of appreciation must be extended to the Rocklin Veneer and Plywood Corporation for major tepee burner repairs completed at their Fortuna, Willow Creek and Orleans mill sites.

* * * * * * * *

PULP ODOR STIMULATES GOLF

Bob Clark, our new air pollution inspector, walked off with top honors in the Humboldt County Employees Golf Tournament held on October 9, 1972. Bob took the low gross trophy with his fantastic 4 under par 66 over the Eureka Municipal Golf Course. Asked to comment on his fine round of golf, Bob said "It must have been that light northwest breeze which helped me to finish up so quickly."

COMPLAINT SCOREBOARD

Pulp mill complaints seesawed dramatically during the past few months. Following a July odor complaint level that was one of the lowest ever recorded, August complaints escalated to a yearly high of 78. Much of the increase was traced to operating difficulties at both pulp mills during the period August 17-24. The 19 odor complaints registered on August 21 was the highest single day level since September 17, 1970 when 21 odor complaints were registered. Corrective measures are being taken to avoid a recurrence of these problems.

Smoke and particulate fallout complaints again returned to their normal high September level.

	July	August	September
Smoke	13	22	42
Fallout	6	12	11
Pulp mill odor	18	78	30
Miscellaneous other	7	14	4

AIR QUALITY SUMMARY

Dustfall values continued to be excessively high in the heavily industrialized area of North Arcata with a yearly high of 218 tons per square mile per month measured at the Guintoli Lane sampling station during September. Present studies indicate the collected dust is approximately 60 percent organic and 40 percent inorganic, which indicates both lumber and gravel originated materials. Further diurnal studies are planned to more positively isolate the problem sources. Suspended particulate matter readings again showed the usual high values in the Blue Lake area that are characteristic of our normal fall inversions. Daily TRS monitoring results are now incorporated in the air quality summary commencing August 21. Already after only six weeks of ambient sampling by this new highly sensitive phomotometric analyzer, we are finding some agreement of daily high values with reported odor complaints.

Pollutant	Month	Maximum	Average-All Stations
Dust Fall (tons per square mile per month)	July	75 @ Guintoli Lane	22
	August	59 @ Guintoli Lane	26
	September	218 @ Guintoli Lane	62
Suspended Particulate Matter (micrograms per cubic meter)	July	91 @ Eureka	49
	August	171 @ Blue Lake	67
	September	102 @ Blue Lake	55
Sulfur Dioxide (ppm) 24 hr. ave.	July	0.001 @ Ft. Humboldt	<0.001
	August	0.001 @ Ft. Humboldt	<0.001
	September	0.001 @ Ft. Humboldt	<0.001
Visibility Violations (less than 10 miles when humidity is less than 70%)	July 15	Minimum - 7 miles	
	August	No violations	
	Sept. 8	Minimum - 8 miles	
	Sept. 20	Minimum - 8 miles	

AIR POLLUTION VIOLATIONS

Air pollution violations continued at a very low level during the summer months reflecting a greater overall citizens' awareness to air pollution problems.

Date	Location	Source	Violation
8- 9-72 Max Studs	Salmon Creek	Tepee Burner	Rule 50-Visual Emissions
9-15-72 Fred Lundblade	Eureka	Open Burning	Rule 53-Open Fires
9-21-72 Twin Parks Lumber	Arcata	Tepee Burner	Rule 10-No Permit
9-26-72 Humboldt Pacific	Rio Dell	Open Burning	Rule 53-Open Fires

AIR QUALITY SUMMARY - EUREKA

JULY						AUGUST						SEPTEMBER					
	High Hourly Average			High 2-hr. Interval	Daily Peak		High Hourly Average			High 2-hr Interval	Daily Peak		High Hourly Average			High 2-hr. Interval	Daily Peak
Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates* COH Units	TRS (ppb)	Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates* COH Units	TRS (ppb)	Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates* COH Units	TRS (ppb)
1	.04	.02	.02	.3		1	-	.02	.04	.3	-	1	.05	.04	.08	.4	< 2
2	.03	.02	.02	.2		2	.02	.02	.04	.2	-	2	.05	.03	.04	.3	7
3	.03	.02	.03	.2		3	.03	.02	.04	.4	-	3	.04	.02	.02	.2	< 2
4	.03	.02	.03	.1		4	.03	.02	.06	.3	-	4	.04	.02	.02	.2	7.5
5	.04	.03	.06	.3		5	.02	.02	.04	.4	-	5	.03	.03	.05	.2	9
6	.03	.02	-	.3		6	.02	.02	.04	.2	-	6	-	-	-	.3	7
7	.02	.02	-	.2		7	.03	.03	.05	.3	-	7	-	-	-	.8	-
8	.02	.02	.03	.3		8	.02	.02	.05	.3	-	8	.03	-	-	.7	-
9	.02	.01	.02	.2		9	.02	.02	.05	.4	-	9	.04	.02	-	.2	-
10	.03	.02	.04	.3		10	.02	.02	.04	.3	-	10	.04	.02	-	.2	-
11	.02	.01	.03	.2		11	.02	.02	.03	.3	-	11	.04	.04	-	.4	7.0
12	.01	.01	.04	.1		12	.03	.02	.03	.2	-	12	.04	.02	-	.3	7.5
13	.01	.01	.05	.3		13	.02	.01	.03	.2	-	13	.03	.04	.06	.6	7.0
14	.03	.02	.03	.2		14	.02	.02	.04	.2	-	14	.03	.05	.08	.7	7.0
15	.04	.02	.03	.3		15	.03	.02	.03	.2	-	15	.04	.05	.08	.4	7.0
16	-	.01	-	.1		16	.03	.02	.04	.2	-	16	.05	.04	.05	.3	-
17	-	.02	-	.3		17	.02	.03	.08	.4	-	17	.06	.03	.04	.2	< 7
18	.03	.02	.05	.3		18	.03	.02	.05	.3	-	18	.05	.03	.05	.4	< 7
19	.02	.02	.03	.3		19	.02	.02	.05	.3	-	19	.05	.04	.09	.4	< 7
20	.03	.02	.04	.3		20	.01	.01	.02	.3	-	20	.03	.05	.17	1.0	3
21	.04	.03	.04	.3		21	.02	.03	.06	.3	13	21	.02	.05	.11	.9	3
22	.05	.02	.03	.2		22	.02	.01	.04	.2	2	22	.04	.03	.07	.6	4
23	.04	.02	.02	.1		23	.03	.02	.05	.3	8	23	.04	.03	.06	.5	3
24	.03	.02	.04	.4		24	.03	.02	.04	.2	9	24	.03	.03	.08	.2	3
25	.03	.02	.05	.3		25	.02	.03	.05	.4	11	25	.02	.04	.07	.6	< 2
26	.03	.02	.03	.3		26	.03	.03	.03	.3	8.5	26	.03	.03	.07	.4	3
27	.03	.02	.03	.2		27	.03	.01	.02	.2	7	27	.02	.03	.09	.4	-
28	.03	.02	.05	.4		28	.03	.02	.04	.2	8	28	.05	.05	.08	.4	3
29	.03	.02	.03	.2		29	.03	.02	.05	.3	8	29	.03	.05	.18	.7	< 2
30	.03	.02	.03	.2		30	.03	.03	.06	.2	8.5	30	.05	.03	.09	.4	< 2
31	.03	.02	.04	.3		31	.05	.04	.04	.4	-	31	-	-	-	-	-
Max.	.05	.03	.06	.4		Max.	.05	.04	.08	.4	13	Max.	.06	.05	.18	1.0	9

*Coefficient of haze units per 1000 lineal feet of air sampled.

A1705

Air Pollution Control News from Humboldt & Del Norte

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CAPCOA - MEETING SCHEDULED

The first meeting of the California Air Pollution Control Officers Association, or whatever name may be chosen for the proposed new organization, will be held in Sacramento, California on March 1, 1973. The meeting has been scheduled in conjunction with the Air Resources Board enforcement seminar planned for February 27 and 28. All county air pollution control officers or their designated representatives are requested to be in attendance if at all possible. A few of the main objectives hoped to be completed at this meeting include the development of organization bylaws, membership policy, voting procedures, committee needs, and other special business as necessary.

SONOMA CONTRACT SERVICES STARTED

The staff of the Humboldt County Air Pollution Control District has recently started a program of tepee burner inspections in northern Sonoma County. This burner study is being handled by Jack Caufield, who also spearheaded a similar study in Del Norte County. The main objectives of the study will include burner inspection, an engineering evaluation of each sawmill waste disposal situation, and recommendations on the possible upgrading or elimination of existing burners at 15 locations in northern Sonoma County.

1971 EMISSION INVENTORY COMPLETED

After many delays, we have finally completed the 1971 emission inventory of air pollutants in Humboldt County. Major changes shown in the emissions from wood-fired power boilers and kraft mill recovery furnaces have been made based on actual plant tests conducted by the Humboldt County Air Pollution Control District since the last inventory conducted in 1969. Control program reductions are most evident in the decrease of lumber industry particulate from 23.3 tons per day to 15.2 tons per day. Sulfur dioxide emissions increased 2.6 tons per day because of the increased use of fuel oil. Most other changes reflect new and updated emission factors now made available by the Environmental Protection Agency.

AVERAGE EMISSIONS OF AIR POLLUTANTS
IN HUMBOLDT COUNTY, 1971
(Tons per Day)

EMISSION SOURCE	PARTICULATE MATTER	CARBON MONOXIDE	HYDRO-CARBONS	OXIDES OF NITROGEN	SULFUR OXIDES
STATIONARY SOURCES					
ORGANICS:					
Petroleum Marketing	-	-	3.2	-	-
Surface Coating	-	-	1.1	-	-
Dry Cleaning	-	-	0.4	-	-
Other	-	-	1.4	-	-
TOTAL	-	-	6.1	-	-
INCINERATION:					
Open Burning, Dumps	0.6	3.3	1.2	0.2	-
Open Burning, Agricultural	5.2	30.5	6.1	0.6	-
Open Burning, Other	0.5	1.6	0.5	0.1	-
Incinerators, Residential	1.8	15.8	0.8	0.1	-
Incinerators, Comm. & Ind.	0.3	0.3	0.3	-	-
TOTAL	8.4	51.5	8.9	1.0	0.1
MINERAL PROCESSING:					
Asphalt Batching	0.1	-	-	-	-
Sand & Gravel	1.1	-	-	-	-
TOTAL	1.2	-	-	-	-
COMBUSTION OF FUELS:					
Natural Gas, Dom. & Comm.	0.1	0.1	-	0.4	-
Natural Gas, Industrial	0.1	-	0.1	0.3	-
Natural Gas, Power Plant	0.1	-	0.2	2.0	-
Fuel Oil	0.3	-	-	0.6	3.5
LPG	-	-	-	0.1	-
Wood Fuel, Residential	0.1	0.4	0.1	-	-
Wood Fuel, Industrial	6.0	1.2	1.2	5.8	-
TOTAL	6.7	1.7	1.6	9.2	3.5
LUMBERING INDUSTRY:					
Tepee Burning	8.2	65.0	5.5	1.0	-
Cyclone Separators	7.0	-	-	-	-
Veneer Driers	-	-	0.8	-	-
TOTAL	15.2	65.0	6.3	1.0	-
PULP MILLS:					
Recovery Furnaces	2.3	30.0	1.2	7.3	3.7
Lime Kilns	0.5	-	-	0.3	1.3
Smelt Dissolvers	0.7	-	-	-	-
Wood Handling	3.4	-	-	-	-
TOTAL	6.9	30.0	1.2	7.6	5.0
TOTAL, STATIONARY SOURCES	38.4	148.2	24.1	18.8	8.6
TRANSPORTATION					
MOTOR VEHICLES:					
Gasoline-Powered					
Exhaust	0.7	109.0	15.3	10.6	0.4
Blowby	-	-	1.0	-	-
Evaporation	-	-	5.0	-	-
Diesel-Powered	0.1	1.7	0.3	2.8	0.2
TOTAL	0.8	110.7	21.6	13.0	0.6
AIRCRAFT	0.1	1.4	0.1	0.1	-
RAILROADS & SHIPS	0.3	0.3	0.4	0.6	0.5
TOTAL, TRANSPORTATION	1.2	112.4	22.1	13.7	1.1
TOTAL, ALL SOURCES	39.6	260.6	46.2	32.5	9.7

NOTE: Because of independent rounding, totals may not equal exactly the sums of their parts.

The symbol (-) indicates a quantity whose magnitude is insignificant relative to the others.

TEPEE VARIANCES DENIED

The Hearing Board of the Humboldt County Air Pollution Control District took a hard stand on three tepee burner variance requests at its December 7, 1972 meeting. Variances ranging from 90 days to one year for McIntosh Lumber Company, Max Studs Incorporated and Carolina-Pacific Plywood Incorporated were flatly denied by the Board. The hearing panel, in taking such firm action, acknowledged that much of the problem was caused by burner manufacturers who were unfamiliar with the requirements of burning redwood wastes and had not obtained prior construction approval from the control district office. The McIntosh Lumber Company of Blue Lake, in making their third Hearing Board appeal, reported that all operating problems with their new Lamb-Grays Harbor burner had been resolved except for repairs to the auxillary fuel oil system which would be completed prior to January 1, 1973. In one additional action, the Hearing Board granted a short-term variance to Louisiana-Pacific Corporation's Samoa plywood plant until January 1, 1973, to complete installation of a new dust collector on their plywood sanding operations.

COMPLAINT SCOREBOARD

Pulp mill odor complaints again showed their normal late fall and winter decrease. Several mill operating difficulties caused by the curtailment of natural gas supplies were traced to six of the nine odor complaints registered in December. Smoke complaints were again high in October and November because of unusually strong fall inversions.

	October	November	December
Smoke	37	28	6
Fallout	3	6	6
Pulp mill odor	31	19	9
Miscellaneous other	3	4	3

AIR POLLUTION VIOLATIONS

Only five formal violation notices were issued during the fall quarter. All were first notifications and require immediate elimination or correction of the violating source.

Date	Location	Source	Violation
10- 2-72	D & L Diesel	Rio Dell	Burn barrel	Rule 50-Visual Emissions
10- 5-72	Knapek's Auto Elec.	Eureka	Open burning	Rule 53-Open Fires
10-18-72	Ramey Lath	Arcata	Tepee burner	Rule 50-Visual Emissions
10-20-72	Enevoldsen Lbr. Co.	Fortuna	Tepee burner	Rule 3(b)-Suspended Perm
11-25-72	Bayside Plywood	Arcata	Tepee burner	Rule 10-No Permit

PACIFIC NORTHWEST CONTROL AGENCIES

EYEING VENEER DRIER EMISSIONS

Air pollution control agencies in the Pacific northwest are taking a long hard look at eliminating the characteristic blue haze normally emitted from plywood veneer driers. Proposed regulations in Oregon call for all veneer driers to meet a 10-20 percent opacity limit no later than December 31, 1974. No action is planned yet on the local scene, but we are watching with interest our neighbors to the north.

NEW BURNING REGULATIONS NOW IN EFFECT

Commencing December 20, 1972, new open burning regulations went into effect throughout the State of California. These new rules allow the use of open outooor fires for the disposal of certain classes of combustible wastes only on specified permissive-burn days to be announced by the California Air Resources Board. These announcements of a permissive-burn or no-burn day are made each morning depending on the meteorological conditions in the eleven California air basins. Burn, no-burn notifications in Humboldt County will also apply to the other five counties comprising the North Coast Air Basin. Burning forecasts may be obtained for a period up to 48 hours in advance for major range improvement or forest management burns if prior request is made to the Air Resources Board.

The original burn, no-burn program enacted by the State Legislature, was intended to apply only to the disposal of agricultural wastes, but it has since been expanded to include right-of-way clearing, ditch and levee maintenance, and commercial brush clearing by special permit.

For the past year, the Humboldt County Air Pollution Control District has been working with the Air Resources Board, the California Division of Forestry, the U. S. Forest Service, local fire districts and other local agencies to develop a single, coordinated burning plan, which could be uniformly applied and would consolidate much of the fragmented state legislation.

The open burning regulations finally adopted by the Humboldt County Board of Supervisors, apply uniformly to all types of burning operations, except for training purposes, hazard abatement and several other small use categories. All remaining open burning has been grouped into eight individual special use classifications, four of which are agricultural and four non-agricultural, as stated in the new regulations.

"These procedures shall apply only to the use of open outdoor fires for the disposal of paper, cardboard, brush, trees or native vegetation, on permissive-burn days as designated by the California Air Resources Board and the Humboldt County Air Pollution Control District. Permits are required for all open fires and shall be issued by the fire control agency having jurisdiction in the respective area. Outdoor fires shall be limited to only the burning of the above-listed materials when accumulated directly from operations which may be included within the following Use Classifications:"

Use Classification A1 - Agricultural operations, including the growing of crops or raising of fowls or animals.

Use Classification A2 - Range improvement to remove unwanted vegetation or to establish an agricultural practice.

Use Classification A3 - Forest management to remove forest debris.

Use Classification A4 - Wildlife improvement to enhance wildlife or game habitat (Department of Fish and Game approval required).

Use Classification 5 - Single and two-family dwellings.

Use Classification 6 - General disposal of wood waste from trees, vines or bushes on property being developed for commercial, residential, or recreational facilities. (This classification expires July 1, 1975 and requires a permit from the air pollution control district in addition to the fire agency).

Use Classification 7 - Right-of-way clearing.

Use Classification 8 - Ditch and levee maintenance.

This new state and county burning program should further reduce the problems of excessive particulate matter caused by inefficient burning processes during periods of poor atmospheric ventilation. Numerous requirements concerning preparation procedures for burning are stated in the burning plan, including a minimum 30 day drying period for freshly cut brush, trees and other vegetation.

Daily notification of burn, no-burn conditions will be released to the general public through local radio and television stations during their normal weather broadcasts. Persons wishing a final copy of the new burning regulations or having any questions should contact the Humboldt County Air Pollution Control District.

AIR QUALITY SUMMARY

The fall of 1972 was marked by many very strong early morning inversions, but the Humboldt Bay Basin was generally well ventilated by mid afternoon. October 6 was a day to remember with maximum pollutant readings being recorded for nitrogen dioxide, sulfur dioxide and total reduced sulfur. At mid-morning on that date, a greyish cloud moved inland from the Samoa peninsula and gave an all-time high TRS reading of 150 parts per billion at Fort Humboldt. At the same time, the downtown Eureka nitrogen dioxide reading soared to a record high hourly average of 0.11 parts per million which was again duplicated on October 28. A yearly maximum 24 hour sulfur dioxide reading of 0.011 parts per million (29 micrograms per cubic meter) also occurred on October 6.

On the brighter side, the year end air quality measurements show the Blue Lake area is now in compliance with federal air quality standards for particulate matter with an annual geometric mean for 1972 of 53.8 micrograms per cubic meter. This was an 18 microgram decrease from the prior years mean of 72 micrograms per cubic meter at the same sample location. The only remaining location in Humboldt County that is not in compliance with the federal primary standards for particulate matter is the Samoa Peninsula area. This sample station should show a major reduction in 1973 following the installation of several new particulate control devices by the Louisiana-Pacific Corporation.

SUMMARY OF SUSPENDED PARTICULATE MATTER

(Micrograms per cubic meter by Hi-Vol Method)

Location	1969	1970	1971	1972				
	Annual Geo. Mean	Annual Geo. Mean	Annual Geo. Mean	Total Samples	Max. Value	Number Over 100	Number Over 150	Annual Geo. Mean
Eureka-Downtown	73	51	46	61	126	1	0	49.5
Eureka-Ft. Humboldt	52	60	--	9	65	0	0	37.2
Eureka-Gen. Hospital	46	38	38	12	84	0	0	40.7
Eureka-St.Hwy. Dept.	--	69	56	12	115	1	0	49.1
Arcata-Downtown	89	58	49	28	130	3	0	45.4
Fortuna	63	37	33	12	73	0	0	37.2
Blue Lake	91	76	72	28	171	2	1	53.8
Samoa	118	104	77	24	291	9	2	77.4
Garberville	35	58	34	4	47	0	0	28.2
Orick	42	72	24	4	84	0	0	37.2
Humboldt County Totals	69	57	48	194	291	18	3	46.1
Crescent City	--	--	--	48	138	2	0	50.2
Weaverville	--	--	--	--	--	-	-	--

AIR QUALITY SUMMARY - EUREKA

OCTOBER						NOVEMBER						DECEMBER					
	High Hourly Average			High 2-hr. Interval	Daily Peak		High Hourly Average			High 2-hr. Interval	Daily Peak		High Hourly Average			High 2-hr. Interval	Daily Peak
Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates COH Units*	TRS (ppb)	Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates COH Units*	TRS (ppb)	Date	Oxidant (KI ppm)	NO_2 (ppm)	NO_x (ppm)	Particulates COH Units*	TRS (ppb)
1	.05	.02	.03	.3	3	1	.03	.04	.07	.4	< 3	1	.01	.03	.12	.8	< 3
2	.03	.03	.06	.4	11	2	.03	.04	.08	.5	-	2	-	.03	.07	.4	< 3
3	.03	.04	.07	.7	11	3	.03	.03	.06	.4	-	3	-	.03	.06	-	3
4	.03	.04	.06	.6	< 3	4	.03	.04	.19	1.1	< 3	4	.03	.02	.06	.6	8
5	.02	.05	.08	.8	8	5	.03	.04	.07	1.0	< 3	5	.03	.02	.09	.7	< 3
6	.04	.11	.33	1.5	150	6	.04	.02	.02	.3	< 3	6	.04	.03	.10	.7	< 3
7	.04	.04	.13	1.1	5	7	.03	.04	.07	.6	4	7	.04	.04	.07	.6	< 3
8	.05	.04	.04	-	6	8	.03	.04	.09	.6	< 3	8	.04	.03	.08	1.2	< 3
9	.04	.05	.14	-	5	9	.04	.04	.07	.5	< 3	9	.02	.07	.18	1.6	< 3
10	.03	.04	.12	-	3	10	.04	.03	.04	.4	3	10	.04	.04	.22	2.3	10
11	.04	.04	.07	.6	4	11	.04	.03	.06	.6	5	11	.03	.05	.20	1.3	< 3
12	.03	.03	.07	.4	5	12	.04	.02	.03	.3	3	12	.04	.03	.11	1.1	< 3
13	.03	.03	.17	1.0	8	13	.04	.02	.03	.2	< 3	13	.03	.04	.25	2.1	6
14	.03	.05	.09	.6	3	14	.03	.06	.23	1.5	5	14	.02	.06	.25	1.7	-
15	.03	.02	.04	.4	3	15	.04	.04	.20	1.1	< 3	15	.05	.03	.06	.6	-
16	.04	.04	.09	.8	3	16	.04	.04	.12	.9	< 3	16	.05	.02	.04	.2	-
17	.03	.04	.11	.7	6	17	.03	.05	.24	1.2	5	17	-	.03	.04	.3	-
18	.04	.02	.05	.4	4	18	.03	.04	.06	.3	< 3	18	-	.03	.12	.5	-
19	.05	.03	.06	.5	5	19	.04	.04	.13	1.0	< 3	19	.03	.03	.15	.7	-
20	.03	.03	.06	.7	12	20	.02	.07	.23	1.7	< 3	20	.02	.05	.14	.8	-
21	.03	.04	.08	.7	5	21	.02	.04	.09	.6	< 3	21	.04	.02	.09	.2	-
22	.03	.02	.03	.2	5	22	.02	.03	.13	1.1	13	22	.05	.05	.09	.7	-
23	.03	.03	.07	.5	10	23	.03	.03	.08	.4	3	23	.04	.03	.05	.3	-
24	.04	.06	.19	.9	6	24	.02	.02	.17	1.6	5	24	.03	.04	.10	1.4	-
25	.04	.11	.35	1.4	10	25	.03	.04	.13	1.0	6	25	.02	.04	.20	1.3	-
26	.04	.03	.08	.4	12	26	.04	.03	.09	.5	6	26	.01	.07	.21	1.2	3
27	.03	.03	.32	1.3	8	27	.03	.04	.11	.7	7	27	.04	.04	.06	.4	< 3
28	.04	.03	.11	1.2	3	28	.03	.03	.18	.8	5	28	.04	.03	.09	.4	8
29	.04	.03	.07	.8	9	29	.03	.05	.18	.8	7	29	.02	.03	.15	-	6
30	.03	.07	.21	1.2	3	30	.02	.05	.27	1.3	9	30	.03	.04	-	-	6
31	.03	.06	.08	.7	4	31						31	.03	.04	-	-	-
Max.	.05	.11	.35	1.5	150	Max.	.04	.07	.27	1.7	13	Max.	.05	.07	.25	2.3	10

*Coefficient of haze units per 1000 lineal feet of air sampled.

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